

Notice of Allowability

Application No.

09/941,748

Examiner

Craig W. Kronenthal

Applicant(s)

TAKEO ET AL.

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 3/22/2005.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

JINGGE WU
PRIMARY EXAMINER

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed March 22, 2005, has been entered and made of record.

Response to Arguments

2. Applicant's arguments filed March 22, 2005, with respect to claims 1-11 have been fully considered and are persuasive. The rejection of claims 1-11 has been withdrawn.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Stuart Lee on behalf of Susan Pan on September 13, 2005.

The application has been amended as follows:

On line one of claims 16 and 17, please replace "claim 1" with - - claim 3 - -.

Allowable Subject Matter

4. Claims 1-18 are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter:
The prior art does not disclose "setting as the value of the detection parameter a

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threshold value obtained by performing an image quality evaluation based on the phantom-image data outputted by the output means,” as recited in claim 1. The relationship between the detection parameter and the output of the image quality evaluation as cited in the claims in combination with the other limitations of the claims, are neither disclosed nor suggested by the prior art of record. Typically, the prior art teaches the use of phantom images to calibrate x-ray systems. While the prior art does teach using the calibrated systems to detect abnormalities, such as anomalous shadows, the prior art falls short of disclosing obtaining a value based on the phantom image and using that value as a threshold for detection.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Galikin (PN 5,544,238) is cited for teaching the use of phantom images to assess x-ray image quality.
- Gupta et al. (PN 6,370,480) is cited for teaching the determination of quantitative image quality indices, which indicate the accuracy of the test image relative to a pre-established standard.
- Farrokhnia et al. (PN 6,694,047) is cited for teaching the use of a phantom image in automatically evaluating a x-ray system.
- Wentz (PN 5,095,499) is cited for teaching using a phantom image with a step wedge producing varying intensities, so a radiologist may determine the quality of an x-ray beam.

- Nakajima (PN 5,583,346) is cited for teaching the use of a predetermined threshold for detecting prospective abnormalities.

7. In view of the amended claims and the Applicant's arguments, the rejections and objections to claims 1-11 are expressly withdrawn.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig W. Kronenthal whose telephone number is (571) 272-7422. The examiner can normally be reached on 8:00 am - 5:00 pm / Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

09/14/05
CWK

JINGGE WU
PRIMARY EXAMINER

